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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,284	11/21/2001	William Lo	MP0082	8191

26703 7590 08/22/2006

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EXAMINER	
NGUYEN, TOAN D	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/991,284	LO, WILLIAM	
	Examiner	Art Unit	
	Toan D. Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-170* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,20-28,35-45,53-64,73-84,92-103,112-123,131-142 and 151-162* is/are rejected.

7)☒ Claim(s) *13-19,29-34,46-52,65-72,85-91,104-111,124-130,143-150 and 163-170* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/12/01,11/07/02,* 12/22/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-12, 20-27, 35-45, 53-64, 73-84, 92-103, 112-123, 131-142, and 151-162 are rejected under 35 U.S.C. 103(a) as being unpatentable over Booth et al. (US 6,516,352) in view of Dwork (US 6,717,941).

For claim 1, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

a first device (figure 5, reference 430) that communicates with a first media (col. 12 lines 24-26);

a second device (figure 5, reference 440) that communicates with a second media (col. 12 lines 26-28); and

a link switch (figure 5, reference 420) that communicates with said first device (figure 5, reference 430) over said first media and with said second device (figure 5, reference 440) over said second media, wherein said link switch (network interface means) provides autonegotiation between said first and second devices (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose a network interface connector (NIC) that communicates with said first device with said second device. In an analogous

art, Dwork discloses disclose a network interface connector (NIC) that communicates with said first device with said second device (col. 1 lines 19-20).

One skilled in the art would have recognized the network interface connector (NIC) that communicates with said first device with said second device, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 2, Booth et al. disclose wherein said first device includes a first NIC interface including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 3, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 4, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 5, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 6, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 7, Booth et al. disclose wherein said NIC (link switch means) includes a second NIC interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 8, Booth et al. disclose wherein said NIC (link switch means) includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 9, Booth et al. disclose wherein said second device (figure 5, reference 440) includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37).

For claim 10, Booth et al. disclose wherein said transmitter of said first MC interface communicates with said receiver of said second NIC interface and said receiver of said first NIC interface communicates with said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 11, Booth et al. disclose wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 12, Booth et al. disclose wherein said transmitters of said first and second NIC interfaces transmit a first configuration ordered set (col. 16 lines 35-37).

For claim 20, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

a switch (figure 5, reference 430) that communicates with a first media (col. 12 lines 24-26);

a device (figure 5, reference 440) that communicates with a second media that is a different type of media than said first media (col. 12 lines 26-28); and

a link switch (figure 5, reference 420) that communicates with said switch (figure 5, reference 430) over said first media and with said device (figure 5, reference 440) over said second media, wherein said link switch allows autonegotiation between said switch and said device (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose a network interface connector (NIC) that communicates with said switch with said device. In an analogous art, Dwork discloses disclose a network interface connector (NIC) that communicates with said switch with said device (col. 1 lines 19-20).

One skilled in the art would have recognized the network interface connector (NIC) that communicates with said switch with said device, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 21, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 22, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 23, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 24, Booth et al. disclose wherein said switch includes a first NIC interface with a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45), said NIC includes a second NIC interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22), and a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22), and said device includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37).

For claim 25, Booth et al. disclose wherein said transmitter of said first NIC interface communicates with said receiver of said second MC interface and said receiver of said first NIC interface communicates with said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 26, Booth et al. disclose wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 27, Booth et al. disclose wherein said transmitters of said first and second NIC interfaces transmit a first configuration ordered set (col. 16 lines 35-37).

For claim 35, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

first means (figure 5, reference 430) for communicating with a first media (col. 12 lines 24-26);

second means (figure 5, reference 440) for communicating with a second media (col. 12 lines 26-28); and

a link switch (figure 5, reference 420) for communicating with said first means (figure 5, reference 430) over said first media and with said second means (figure 5, reference 440) over said second media and for providing autonegotiation between said first and second devices (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose network interfacing means for communicating with said first means with said second means. In an analogous art, Dwork discloses disclose network interfacing means for communicating with said first means with said second means (col. 1 lines 19-20).

One skilled in the art would have recognized the network interfacing means for communicating with said first means with said second means, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s

network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 36, Booth et al. disclose wherein said first means includes a first network interfacing means including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 37, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 38, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 39, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 40, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 41, Booth et al. disclose wherein said network interfacing means includes:

a second network interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22); and

a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 42, Booth et al. disclose wherein said second means includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37).

For claim 43, Booth et al. disclose wherein said transmitter of said first network interface communicates with said receiver of said second network interface and said receiver of said first network interface communicates with said transmitter of said second network interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 44, Booth et al. disclose wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 45, Booth et al. disclose wherein said transmitters of said first and second network interfaces transmit a first configuration ordered set (col. 16 lines 35-37).

For claim 53, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

coupling a first media to a first device (figure 5, reference 430) (col. 12 lines 24-26);

coupling a second media to a second device (figure 5, reference 440) wherein said second media is a different type of media than said first media (col. 12 lines 26-28); and

using a link switch (figure 5, reference 420) to communicate with said first device (figure 5, reference 430) over said first media and with said second device (figure 5, reference 440) over said second media, wherein said NIC allows autonegotiation

between said first and second devices (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose using a network interface connector (NIC) to communicate with said first device and with said second device. In an analogous art, Dwork discloses disclose using a network interface connector (NIC) to communicate with said first device and with said second device (col. 1 lines 19-20).

One skilled in the art would have recognized using the network interface connector (NIC) to communicate with said first device and with said second device, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 54, Booth et al. disclose further comprising providing a first NIC interface including a transmitter and a receiver in said first device (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 55, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 56, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 57, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 58, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 59, Booth et al. disclose further comprising providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 60, Booth et al. disclose further comprising providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 61, Booth et al. disclose further comprising providing a second copper interface with a transmitter and a receiver in said second device (col. 15 lines 35-37).

For claim 62, Booth et al. disclose further comprising establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 63, Booth et al. disclose further comprising establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface

and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 64, Booth et al. disclose further comprising transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37).

For claim 73, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

a first device (figure 5, reference 430) that communicates with a first media (col. 12 lines 24-26);

a second device (figure 5, reference 440) that communicates with a second media, wherein said first media is a different media than said second media (col. 12 lines 26-28); and

a link switch (figure 5, reference 420) that communicates with said first device (figure 5, reference 430) over said first media and with said second device (figure 5, reference 440) over said second media, wherein said link switch provides autonegotiation between said first and second devices (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose a network interface connector (NIC) that communicates with said first device with said second device. In an analogous art, Dwork discloses disclose a network interface connector (NIC) that communicates with said first device with said second device (col. 1 lines 19-20).

One skilled in the art would have recognized the network interface connector (NIC) that communicates with said first device with said second device, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 74, Booth et al. disclose wherein said first device includes a first NIC interface including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 75, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 76, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 77, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 78, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 79, Booth et al. disclose wherein said NIC (link switch means) includes a second NIC interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 80, Booth et al. disclose wherein said NIC (link switch means) includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 81, Booth et al. disclose wherein said second device (figure 5, reference 440) includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37).

For claim 82, Booth et al. disclose wherein said transmitter of said first MC interface communicates with said receiver of said second NIC interface and said receiver of said first NIC interface communicates with said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 83, Booth et al. disclose wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 84, Booth et al. disclose wherein said transmitters of said first and second NIC interfaces transmit a first configuration ordered set (col. 16 lines 35-37).

For claim 92, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

coupling a first media to a first device (figure 5, reference 430) (col. 12 lines 24-26);

coupling a second media to a second device (figure 5, reference 440), wherein said second media is a different type of media than said first media (col. 12 lines 26-28); and

using a link switch (figure 5, reference 420) to communicate with said first device (figure 5, reference 430) over said first media and with said second device (figure 5, reference 440) over said second media, wherein said NIC allows autonegotiation between said first and second devices (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose using a network interface connector (NIC) to communicate with said first device and with said second device. In an analogous art, Dwork discloses disclose using a network interface connector (NIC) to communicate with said first device and with said second device (col. 1 lines 19-20).

One skilled in the art would have recognized using the network interface connector (NIC) to communicate with said first device and with said second device, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network

station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 93, Booth et al. disclose further comprising providing a first NIC interface including a transmitter and a receiver in said first device (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 94, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 95, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 96, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 97, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 98, Booth et al. disclose further comprising providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 99, Booth et al. disclose further comprising providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 100, Booth et al. disclose further comprising providing a second copper interface with a transmitter and a receiver in said second device (col. 15 lines 35-37).

For claim 101, Booth et al. disclose further comprising establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 102, Booth et al. disclose further comprising establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 103, Booth et al. disclose further comprising transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37).

For claim 112, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

first means (figure 5, reference 430) for communicating with a first media (col. 12 lines 24-26);

second means (figure 5, reference 440) for communicating with a second media, wherein said first media is a different media than said second media (col. 12 lines 26-28); and

a link switch (figure 5, reference 420) for communicating with said first means (figure 5, reference 430) over said first media and with said second means (figure 5,

reference 440) over said second media and for providing autonegotiation between said first and second devices (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose network interface means for communicating with said first means with said second means. In an analogous art, Dwork discloses disclose network interface means for communicating with said first means with said second means (col. 1 lines 19-20).

One skilled in the art would have recognized the network interface means for communicating with said first means with said second means, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 113, Booth et al. disclose wherein said first means includes a first network interfacing means including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 114, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 115, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 116, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 117, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 118, Booth et al. disclose wherein said network interface means includes a second network interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 119, Booth et al. disclose wherein said network interface means includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 120, Booth et al. disclose wherein said second means includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37).

For claim 121, Booth et al. disclose wherein said transmitter of said first network interface communicates with said receiver of said second network interface and said receiver of said first network interface communicates with said transmitter of said second network interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 122, Booth et al. disclose wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 123, Booth et al. disclose wherein said transmitters of said first and second network interfaces transmit a first configuration ordered set (col. 16 lines 35-37).

For claim 131, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

coupling a first media to a switch (figure 5, reference 430) (col. 12 lines 24-26);

coupling a second media to a device (figure 5, reference 440) wherein said second media is a different type of media than said first media (col. 12 lines 26-28); and

using a link switch (figure 5, reference 420) to communicate with said switch (figure 5, reference 430) over said first media and with said device (figure 5, reference 440) over said second media, wherein said NIC allows autonegotiation between said switch and second device (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose using a network interface connector (NIC) to communicate with said switch and with said device. In an analogous art, Dwork discloses disclose using a network interface connector (NIC) to communicate with said switch and with said device (col. 1 lines 19-20).

One skilled in the art would have recognized using the network interface connector (NIC) to communicate with said switch and with said device, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different

physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 132, Booth et al. disclose further comprising providing a first NIC interface including a transmitter and a receiver in said switch (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 133, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 134, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 135, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 136, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 137, Booth et al. disclose further comprising providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 138, Booth et al. disclose further comprising providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 139, Booth et al. disclose further comprising providing a second copper interface with a transmitter and a receiver in said device (col. 15 lines 35-37).

For claim 140, Booth et al. disclose further comprising establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 141, Booth et al. disclose further comprising establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 142, Booth et al. disclose further comprising transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37).

For claim 151, Booth et al. disclose network interface system and method for dynamically switching between different physical layer devices, comprising:

coupling a first media to a switch (figure 5, reference 430) (col. 12 lines 24-26);

coupling a second media to a device (figure 5, reference 440) wherein said second media is a different type of media than said first media (col. 12 lines 26-28); and

using a link switch (figure 5, reference 420) to communicate with said switch (figure 5, reference 430) over said first media and with said device (figure 5, reference 440) over said second media, wherein said NIC allows autonegotiation between said

switch and second device (figure 10, reference steps 820, and 822, col. 13 lines 15-25, and col. 17 lines 44-46).

However, Booth et al. do not expressly disclose using a network interface connector (NIC) to communicate with said switch and with said device. In an analogous art, Dwork discloses disclose using a network interface connector (NIC) to communicate with said switch and with said device (col. 1 lines 19-20).

One skilled in the art would have recognized using the network interface connector (NIC) to communicate with said switch and with said device, and would have applied Dwork's network interface in Booth et al.'s link switch 420. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Dwork's method and apparatus for early termination of frame data in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being handles the transmission and reception of frame data between a transmitting network station and a receiving network station via a network communications system, such as local area network (col. 1 lines 19-22).

For claim 152, Booth et al. disclose further comprising providing a first NIC interface including a transmitter and a receiver in said switch (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

For claim 153, Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2).

For claim 154, Booth et al. disclose wherein said first media includes 1000BASE-SX media (col. 4 line 67).

For claim 155, Booth et al. disclose wherein said first media includes 1000BASE-X media (col. 5 line12).

For claim 156, Booth et al. disclose wherein said second media includes 1000BASE-T media (col. 5 line 23).

For claim 157, Booth et al. disclose further comprising providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 158, Booth et al. disclose further comprising providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22).

For claim 159, Booth et al. disclose further comprising providing a second copper interface with a transmitter and a receiver in said device (col. 15 lines 35-37).

For claim 160, Booth et al. disclose further comprising establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51).

For claim 161, Booth et al. disclose further comprising establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56).

For claim 162, Booth et al. disclose further comprising transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37).

3. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Booth et al. (US 6,516,352) in view of Dwork (US 6,717,941) further in view of Overs et al. (US 6,600,755).

For claim 28, Booth et al. in view of Dwork do not expressly disclose wherein said transmitter of said first copper interface does not transmit a fast link pulse (FLP) burst until said transmitter of said first NIC interface transmits said first configuration ordered set. In an analogous art, Overs et al. disclose wherein said transmitter of said first copper interface does not transmit a fast link pulse (FLP) burst until said transmitter of said first NIC interface transmits said first configuration ordered set (col. 2 lines 9-13).

One skilled in the art would have recognized wherein said transmitter of said first copper interface does not transmit a fast link pulse (FLP) burst until said transmitter of said first NIC interface transmits said first configuration ordered set, and would have applied Overs et al.'s autonegotiation in Booth et al.'s network interface. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Overs et al.'s link technology detections in multiple speed physical links in Booth et al.'s network interface system and method for dynamically switching between different physical layer devices with the motivation being to determine if the link segment is operational in the absence of packet data (col. 2 lines 5-6).

Allowable Subject Matter

4. Claims 13-19, 29-34, 46-52, 65-72, 85-91, 104-11, 124-130, 143-150 and 163-170 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed 6/06/06 have been fully considered but they are not persuasive.

The applicant argues with respect to claims 1, 20, 35, 53, 73, 92, 112, 131, and 151, that Booth, either singly or in combination with Dwork and/or Overs, fails to show, teach, or suggest a first device that communicates with a first media, a second device that communicates with a second media, and a network interface connector (NIC) that communicates with said first device over said first media and with said second device over said media, wherein said NIC provides autonegotiation between said first and second device. The examiner disagrees. Applicant's attention is directed to Booth 's abstract, where Booth clearly teaches "A system and method for dynamically switching between different physical layer devices (PHYs) in a network interface. The system comprises a network interface in a network device, e.g., a network card in a computer system, which includes a first PHY device and a second PHY device (a network interface connector (NIC) that communicates with said first device over said first media and with said second device over said media means). The first PHY device is coupled to a first transmission medium (such as fiber-optic cable), which requires a continuous connection to the computer when active (a first device that communicates with a first

media means)... The second PHY device is coupled to a second transmission medium (such as copper cable) which does not require this continuous connection (a second device that communicates with a second media means)."

Booth further teaches at col. 17 lines 5-7 (see figure 10), "Referring now to FIG. 10, a method 800 is depicted which illustrates the switching procedures between two network links coupled to a network interface card such as NIC 212.", and Booth teaches at col. 17 lines 44-46 (see figure 10, reference steps 820 and 822), "In step 820, a determination is made of the whether the switch is from TBI (SERDES PHY 430 or first device means) to G/MII (G/MII PHY 440 or second device means) or vice-versa. If the switch is to a SERDES PHY, method 800 proceed to step 822,". Furthermore, Booth teaches at col. 13 lines 15-18, "The SERDES device requires the PCS to perform auto-negotiation. Thus, if the SERDES device is to be the selected interface, the TBI interface within NIC 212 is also active upon power-up." (wherein said NIC provides autonegotiation between said first and second device means). Therefore, the first device 430 and the second device 440 do exchange information, and the NIC 212 provides autonegotiation between the first device 430 and the second device 440.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN
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